

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-17 (Canceled)

Claim 18 (**Currently Amended**): An implantable vascular filter, comprising:

an implantable filter body having a substantially conical shape, the filter body configured to be expanded and secured to an inner wall of a blood vessel; and

an implantable agitation member movably coupled to the filter body; and
a rotatable drive mechanism adapted to contact and mechanically engage the agitation member for causing the agitation member to rotate relative to the filter body;

wherein the filter body and the agitation member are detachable from a delivery catheter for implantation in the blood vessel and wherein the drive mechanism is configured to be advanced through the blood vessel for releasable attachment to the agitation member after the agitation member and filter have been implanted in the blood vessel for causing the agitation member is adapted to break apart particles captured within the filter body.

Claim 19 (Previously Presented): The vascular filter of claim 18, wherein the agitation member is located substantially within an interior volume of the filter body.

Claim 20 (**Currently Amended**): The vascular filter of claim 18, further comprising An implantable vascular filter, comprising:

an implantable filter body having a substantially conical shape, the filter body configured to be expanded and secured to an inner wall of a blood vessel;

an implantable agitation member movably coupled to the filter body; and

an implantable flow-receiving member coupled to the agitation member, wherein the flow receiving member is shaped to be powered by the flow of blood through the blood vessel for causing the agitation member to rotate relative to the filter body;

wherein the filter body and the agitation member are detachable from a delivery catheter for implantation in the blood vessel and wherein the agitation member is adapted to break apart particles captured within the filter body.

Claim 21 (Previously Presented): The vascular filter of claim 20, wherein the agitation member is configured to reverse direction.

Claim 22 (Cancelled)

Claim 23 (Currently Amended): The vascular filter of claim 18 20, further comprising a clutch mechanism such that the agitation member moves relative to the filter body only when a particle is trapped within the filter body.

Claim 24 (Currently Amended): The vascular filter of claim 18, further comprising An implantable vascular filter, comprising:

an implantable filter body having a substantially conical shape, the filter body configured to be expanded and secured to an inner wall of a blood vessel;

an implantable agitation member movably coupled to the filter body; and

an implantable energy storage device directly coupled to the filter body for causing the agitation member to rotate;

wherein the filter body and the agitation member are detachable from a delivery catheter for implantation in the blood vessel and wherein the agitation member is adapted to break apart particles captured within the filter body.

Claim 25 (Previously Presented): The vascular filter of claim 24, further comprising an electronic sensor for detecting the presence of particles within the filter body.

Claim 26-27 (Cancelled)

Claim 28 (Currently Amended): The vascular filter of claim 27, further comprising An implantable vascular filter, comprising:

an implantable filter body having a substantially conical shape, the filter body configured to be expanded and secured to an inner wall of a blood vessel;

an implantable agitation member movably coupled to the filter body, wherein the agitation member is configured to vibrate at ultrasonic frequencies for breaking apart the particle; and

a battery directly coupled to the filter body for supplying power to the agitation member;

wherein the filter body and the agitation member are detachable from a delivery catheter for implantation in the blood vessel and wherein the agitation member is adapted to break apart particles captured within the filter body.

Claims 29-30 (Canceled)

Claim 31 (Currently Amended): An implantable device configured to capture and macerate emboli within a blood vessel, comprising:

an expandable filter body having anchoring members for engaging an inner wall of a blood vessel;

an agitation member located substantially within an interior volume of the filter body, the agitation member permanently coupled to the filter body; and

a drive mechanism having a distal end portion configured for mechanical attachment to the agitation member for rotating the agitation member with respect to the filter body;

wherein the filter body and the agitation member are detachable from a delivery catheter for fixation in the blood vessel and wherein the drive mechanism is advanceable through the blood vessel for releasable attachment to the agitation member after the filter body and agitation member have been fixed in the blood vessel for causing the agitation member is configured to macerate emboli captured within the filter body.

Claim 32 (Currently Amended): The implantable device of claim 31; An implantable device configured to capture and macerate emboli within a blood vessel, comprising:

an expandable filter body having anchoring members for engaging an inner wall of a blood vessel;

an agitation member located substantially within an interior volume of the filter body, the agitation member permanently coupled to the filter body; and

a drive mechanism for rotating the agitation member with respect to the filter body, wherein the drive mechanism comprises a flow receiving member configured to be rotated by blood flowing through the blood vessel;

wherein the filter body and the agitation member are detachable from a delivery catheter for fixation in the blood vessel and wherein the agitation member is configured to macerate emboli captured within the filter body.

Claim 33 (Currently Amended): The implantable device of claim 31, wherein the drive mechanism comprises an elongate drive catheter coupled to the agitation member.

Claim 34 (Previously Presented): The implantable device of claim 33, further comprising an aspiration catheter configured for advancement along the elongate drive catheter.

Claim 35 (Currently Amended): The implantable device of claim 31, An implantable device configured to capture and macerate emboli within a blood vessel, comprising:

an expandable filter body having anchoring members for engaging an inner wall of a blood vessel;

an agitation member located substantially within an interior volume of the filter body, the agitation member permanently coupled to the filter body; and

a drive mechanism for rotating the agitation member with respect to the filter body, wherein the drive mechanism comprises an implantable energy storage device coupled to the agitation member.

wherein the filter body and the agitation member are detachable from a delivery catheter for fixation in the blood vessel and wherein the agitation member is configured to macerate emboli captured within the filter body.

Claim 36-37 (Canceled)